

16. *RUPICOLA PERUVIANA* (Vieill.).

San Cristoval is the most eastern locality yet noted for the Peruvian Cock-of-the-Rock, which extends hence throughout the chain of the Andes into Bolivia. (See our remarks on the distribution of *Rupicola*, Ex. Orn. p. 29.)

27. *CHLORONERPES XANTHOCHLORUS*, sp. nov.

Fem. *Supra olivaceus, pileo toto cum nucha et linea utrinque a rictu ad cervicem ducta brunnescenti-flavis: capitis lateribus fuscis: subtus brunnescenti-flavus, nisi in gula crebre fusco transfasciatus: remigum marginibus internis clare rufis immaculatis; horum apicibus nigricantibus: cauda olivacea, rectricum apicibus nigricantibus: rostro et pedibus nigris: long. tota 8, alæ 5, caudæ 2.9, rostri a rictu 1.1.*

Hab. San Cristoval, prov. Tachira, Venezuela (Goering).

Obs. Similis feminae *C. chrysochlori*, sed pileo aureo diversus.

Of this *Chloronerpes* Mr. Goering obtained a single example at San Cristoval. It appears to be the female of the species, nearly related to *C. chrysochlorus* of Brazil, of which there is a female in Selater's collection. From this Mr. Goering's bird is conspicuously different, in that the head and nape are of a bright brownish yellow, instead of being olive like the back, as is the case in *C. chrysochlorus*. The male of *C. xanthochlorus* will, no doubt, have more or less red on the head, as is the case in the allied species.

32. *CAICA PYRILIA*, Bp.

A single specimen of this beautiful Parrot was obtained by Mr. Goering at San Cristoval, and is now in Salvin and Godman's collection. See our note on this species in Mr. Wyatt's article on the Birds of Columbia (Ibis, 1871, p. 381).

5. Descriptions of new Species of *Sphingidæ*.

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(Plates XXXVI. & XXXVII.)

In consequence of the numerous new species discovered in Mr. Moore's rich collection of Eastern *Sphingidæ*, it has been proposed that I should relieve my memoir on this subject by forming a separate paper of the descriptions of them for the 'Proceedings.' I have, however, left one or two new forms in the original paper, either because the descriptions were very short and the species unimportant, or because I considered it advisable to have certain characters before the eye of the student when examining into the species which I have separated in a genus.

The characters of the subfamilies and of most of the new genera are retained in the above-mentioned revision: descriptions of larvæ are also, for the most part, left in that paper.



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Subfamily MACROGLOSSINÆ.

Genus SATAPES, Moore.

1. SATAPES XYLOCOPARIS, n. sp. (Plate XXXVI. fig. 1.)

Primaries semitransparent smoky brown, basal half crossed by three black bands, the innermost near the base three times as broad as the others, the outermost diffused, oblique, crossing the wing at the end of the cell; base grey; secondaries with apical area to first median branch semitransparent brown; anal-abdominal area opaque, black-brown; nervures blackish; costa silvery white; head, palpi, and antennæ above dull black; thorax bright golden yellow, collar blackish behind; abdomen black; the third, fourth, fifth, and sixth segments clothed with yellow hairs, with yellow-tipped black lateral tufts; anal tuft black; wings below somewhat lilacine, black-brown at base, veins black; palpi below slate-coloured; thorax dark brown, yellow at base of wings; abdomen black, segments slate-coloured at the margins. Expanse of wings 2 inches 11 lines.

Shanghai, China.

Type, coll. F. Moore.

This handsome species is allied to *S. uniformis* and *S. ventralis*. The species of *Sataspes* appear to mimic *Xylocopa æstuans* and *X. flavonigrescens*.

Genus HEMARIS, Dalman.

2. HEMARIS MANDARINA, n. sp. (Plate XXXVI. fig. 2.)

Nearly allied to *H. sieboldi* (*whitelyi*, Butl.), but differs in the coloration of the secondaries (which is like that of *H. radians*), the basal and abdominal areas above being ochreous, the costa pale yellow; primaries below with basal half of costa ochreous; inner margin pale yellow, ochreous in front; secondaries with costa, base, and abdominal area ochreous; palpi and pectus pale testaceous. Expanse of wings 2 inches 1 line.

Shanghai, China.

Type, coll. F. Moore.

This species bears much the same relation to *H. radians* that *H. sieboldi* does to *H. alternata*, the dark brown border of primaries being strongly denticulated in *H. radians* and *H. alternata*, but entire in *H. sieboldi* and *H. mandarina*.

Genus RHOPALOPSYCHE, n. gen.

Allied to *Macroglossa*, but at once distinguished by the distinctly clubbed antennæ, resembling those of a Hesperidian butterfly: the wings are also somewhat shorter and the terminal joint of palpi more prominent.

Type, *R. nycteris* of Kollar.

3. RHOPALOPSYCHE BIFASCIATA, n. sp. (Plate XXXVI. fig. 4.)

Primaries with basal two thirds and outer margin brownish cinereous, disk red-brown; two parallel central transverse dark brown bands: secondaries orange-yellow; outer margin, except at anal angle, rather broadly dark brown; body brownish grey; metathorax,

tips of pterygodes, and base of abdomen clothed with red-brown hairs; three basal segments orange-yellow at the sides; subterminal segment edged behind with an interrupted white fringe; anal black, greyish at the tip; lateral tufts brown, tipped with whitish: wings below reddish, ferruginous yellow at base, with brown border to outer margin; secondaries with abdominal area broadly yellow; two or three indistinct ferruginous transverse lines: palpi white; pectus whitish; abdomen and base of anal tuft rosy brown; lateral tufts brown, with white tips. Expanse of wings 1 inch 7 lines.

South India (*Ward*).

Type, coll. F. Moore.

Genus MACROGLOSSA, Ochsenheimer.

4. MACROGLOSSA AFFICTITIA, n. sp. (Plate XXXVI. fig. 7.)

Nearly allied to *M. gyrans* and *M. belis*; from the former it differs above in having the outer borders of secondaries better defined, the orange band consequently less diffused and not so red in tint; the white fringe to the last segment but one less pure in colour; the wings below with all the transverse brown lines strongly marked, as in *M. belis*, brownish testaceous in colour; discoidal cell of primaries clothed with golden yellow hairs; abdominal area of secondaries orange; palpi below white, pectus whity brown, abdomen brownish testaceous: from *M. belis* it differs above in the duller orange band of secondaries, and in having the lateral orange spots on the abdomen united (as in *M. gyrans*), and the last segment but one bordered with sordid white; below it differs in the altogether browner tint of the wings. Expanse of wings 2 inches.

Canara.

Type, coll. F. Moore.

We have what I believe to be a small variety of this species in the British Museum; it is, however, much darker, and is said to come from North India.

5. MACROGLOSSA VIALIS, n. sp. (Plate XXXVI. fig. 5.)

Nearly allied to *M. gyrans*; but the primaries above with the transverse lines much more distinct, and the central area between the second and third lines whitish brown, forming a distinct sub-central white band: secondaries with the outer margin broadly and distinctly bordered with brown; sides of body reddish, the lateral abdominal tufts yellowish; transverse lines on underside of wings more distinct. Expanse of wings 1 inch 7 lines.

Canara.

Type, coll. F. Moore.

This species seems to stand in the same relation to *M. gyrans* as *M. sitiene* does to *M. belis*.

6. MACROGLOSSA AVICULA, Boisd.

Wings above dark pitchy brown, primaries with a lilacine tint, crossed by two transverse central blackish bars; a bifid subapical quadrate spot; secondaries with the costa testaceous: head, thorax, and three basal segments olive-green, the latter marked at the sides by quadrate orange spots; the fourth and fifth segments pitchy, in-

interrupted in the middle by a cruciform paler brown marking; the fifth segment bordered behind by ochreous scales; terminal segments red-brown, blackish in the middle; anal tuft black at base, red-brown at tip; lateral tufts black at base, tawny at tips: wings below chocolate brown, transversely crossed by indistinct nebulous brown bars, base bright yellow; primaries with inner margin testaceous; palpi and thorax below creamy: abdomen red-brown; basal segments with a central longitudinal yellow patch; lateral tufts black, tipped with ochreous; anal tuft as above. Expanse of wings 1 inch 9 lines.

Java (*Argent*).

Type, B.M.

Nearly allied to *M. bombylans*, but differing in several important points.

7. *MACROGLOSSA GLAUOPTERA*, n. sp. (Plate XXXVI. fig. 9.)

Primaries above shining dark slaty grey, base very dark; two dark brown transverse subparallel bands, edged with black; two waved parallel discal lines from external angle to costa: secondaries with the costa silky stramineous, basal half orange, interrupted at base by two diverging black dashes, outer margin to near middle of wing dark brown: body dull tawny; abdomen with ferruginous lateral and central spots, also whitish-tipped ferruginous lateral tufts; anal tuft black, pale rosy brown at the tip: wings below deep ferruginous, base and abdominal area of secondaries golden yellow; outer margin brownish, two or three indistinct transverse brown lines: palpi below missing, probably white; pectus sordid whitish, reddish laterally; abdomen ferruginous, lateral tufts brown, tipped with pale ochreous; anal tuft red-brown. Expanse of wings 2 inches.

Ceylon (*T. Skinner*).

One bad example, coll. F. Moore.

8. *MACROGLOSSA NIGRIFASCIATA*, n. sp. (Plate XXXVII. fig. 3.)

Primaries above greyish brown, somewhat slaty towards base; a black transverse subbasal band, beginning very broad on inner margin and narrowing to costal nervure; an angulated and curved black-edged olivaceous discal band; outer margin from costa to external angle olive-brown; a blackish subapical spot: secondaries orange, costa stramineous, base with two diverging black dashes; outer margin broadly black-brown: body olivaceous, three basal segments with lateral orange spots, terminal segments with lateral white-tipped black tufts; anal tuft rosy-brown: wings below dull ferruginous, becoming smoky brown on outer margin, yellow at base; secondaries with a large pyriform abdominal golden-yellow patch; disk crossed by two or three brown lines; palpi missing; pectus and centre of venter whitish-brown, remainder of abdomen black-brown. Expanse of wings 2 inches 1 line.

Ceylon.

One bad example, coll. F. Moore.

9. *MACROGLOSSA LUTEATA*, n. sp. (Plate XXXVII. fig. 5.)

Nearly allied to *M. proxima*: primaries dark brown, becoming lilacine in the centre, crossed near base by a dark oblique band, and

beyond the middle by two parallel slightly waved lines : secondaries dark brown, with a central ochreous band ; costa testaceous : body dark brownish grey ; anal tuft dark brown, tipped with reddish ; three basal segments with small lateral ochreous spots : wings below rather brighter than in *M. proxima*, body paler, otherwise the same. Expanse of wings 2 inches 7 lines.

Silhet.

Type, coll. F. Moore.

Only one rather damaged example ; it may at once be distinguished from *M. proxima* by the more distinct and paler band of secondaries.

10. *MACROGLOSSA INTERRUPTA*, n. sp. (Plate XXXVII. fig. 2.)

Nearly allied to the preceding ; palpi shorter : primaries brown, a blackish subbasal marking, united below, trifasciate above ; a very indistinct angulated band from costa just beyond cell to external angle ; outer margin with a zigzag olive-brown border from apex to second median branch ; a subapical black lunule, touching the border : secondaries with the costa and base pale brown ; two diverging basal black streaks, outer margin very broadly black-brown, anal angle very narrowly bordered with brown ; a central orange-yellow transverse band, interrupted below first median branch ; an oval basicostal orange-yellow spot : body red-brown ; abdomen transversely banded with black, three basal segments with lateral oval yellow spots : wings and body below as in *M. belis*. Expanse of wings 2 inches 1 line.

Darjeeling.

Type, coll. F. Moore.

11. *MACROGLOSSA PYRRHOSTICTA*, n. sp. (Plate XXXVI. fig. 8.)

Wings above almost exactly like *M. corythus* ; abdomen greyer, the subterminal segment edged with an interrupted white fringe : primaries below red-brown, yellow at base, inner margin whitish, disco-submarginal area red ; outer margin smoky brown : secondaries tawny, abdominal area and base golden yellow ; outer margin and centre of costa brown ; three irregular red-brown transverse lines : palpi below white ; pectus whitish, pale rosy brown at the sides : abdomen brown, with a central and lateral series of large red spots ; second and third segments with a small lateral white dot. Expanse of wings 2 inches 3 lines.

Shanghai, China.

Type, coll. F. Moore.

This beautiful species may at once be distinguished from all its allies, excepting the little *M. insipida*, by the peculiar coloration of the under surface. The larva is stone-colour whitish-speckled, the anterior segments greenish, the horn, two lines on each side of the dorsal region, and six or seven oblique lines between the spiracles (which are black) green. It feeds on a beautiful but unpleasant-smelling creeping plant with waxy crimson-and-white flowers ; Mr. Lewis found it upon this plant in company with the larva of *M. gilia*.

12. *MACROGLOSSA INSIPIDA*, n. sp.

Like a small form of *M. catapyrrha*, but the secondaries above

with a broader orange band and, consequently, a narrower marginal brown border, primaries not varied with tawny; below like *M. pyrrhosticta*, but the secondaries rather redder. Expanse of wings 1 inch 6 lines.

Ceylon (*Skinner*).

Type, coll. F. Moore.

13. *MACROGLOSSA CATAPYRRHA*, n. sp. (Plate XXXVI. fig. 6.)

Nearly allied to *M. fraterna*; primaries purplish slate-colour, crossed by brown lines as in that species, *M. belis*, and *M. corythus*, but with the subapical dark spot less distinct, and the bands (formed by double lines) more or less tawny; secondaries exactly as in *M. fraterna*: body purplish slate-colour; pterygodes, collar, and sides of abdomen ferruginous; three lateral quadrate orange spots and dorsal double series of blackish spots as in *M. fraterna*; subterminal segment edged with white behind: wings below ferruginous, yellow at base, with terminal irregular brown border; usual brown transverse lines; palpi and coxæ whitish; sides of thorax and abdomen bright ferruginous, the second and third segments with a white lateral dot; lateral tufts tipped with ochreous. Expanse of wings 1 inch 11 lines.

N. India (*coll. F. Moore*); Ceylon (*Templeton*).

B.M.

14. *MACROGLOSSA HEMICHROMA*, n. sp. (Plate XXXVII. fig. 1.)

Allied to *M. fero*, but the basal half of primaries grey sharply defined and paler externally; the apical half olive-brown, darkest internally, outer margin sprinkled with paler scales: secondaries as in *M. fero*, dark brown with a central orange band; costa testaceous: head and thorax reddish brown, with a dark dorsal line: abdomen dark brown, the three basal segments with yellow spots; lateral tufts dark brown, tipped with white; anal tuft dark brown, paler at the tip: wings below reddish brown, outer margin with a darker border; secondaries with a large pyriform orange-yellow abdominal patch, four or five transverse dark brown lines; body below grey, palpi and prothorax sordid white. Expanse of wings 2 inch 8 lines.

Silhet.

Type, coll. F. Moore.

Only one example, not in very good condition.

15. *MACROGLOSSA IMPERATOR*, n. sp. (Plate XXXVII. fig. 4.)

Primaries above dark brown, almost black, with the base and basal two thirds of costa dark grey; outer margin paler grey; a large costal subapical patch, a disco-submarginal irregular streak (near external angle and extending to lower radial nervure), and a transverse straight central band whitish brown; secondaries black-brown, with a broad central irregular orange band, costa testaceous; head grey, with a central piceous streak; thorax piceous, with two parallel longitudinal grey bands, reddish posteriorly; abdomen glossy grey, with lateral series of quadrate black spots; second and third segments with small lateral orange spots; lateral tufts black-brown, tipped with white; anal tuft black-brown (incomplete):

primaries below dull ferruginous, yellow at base and smoky along costa; a submarginal irregular ochraceous band, diffused in the centre internally, intersected and partially bounded by brown lines; outer margin brown: secondaries dull pale tawny, becoming golden yellow on abdominal area; costa and base greyish; disk crossed by two lunulated discal parallel lines; outer margin unequally bordered with brown: palpi white; pectus reddish grey; abdomen grey, irrorated with tawny scales. Expanse of wings 2 inches 7 lines.

Ceylon (*T. Skinner*).

Type, coll. F. Moore.

This magnificent species approaches *M. mitchellii* of Boisduval.

Genus *LOPHURA*, Walker.

16. *LOPHURA MASURIENSIS*, n. sp. (Plate XXXVI. fig. 3.)

♂ ♀. Primaries above pale rose-brown, varied with greyish lilacine; two black dots near the base, four indistinct oblique sub-angulated transverse brown lines; a central subolivaceous oblique band, intersected by two opposed bisinuated black lines and interrupted at end of cell by a triangular olivaceous patch, bounded on one side by the costa, enclosing a discocellular pitchy spot crossed by a pale brown streak, and limited just below third median branch by a black litura; disk hatched and clouded with olive-brown, a short bimacular whitish litura running obliquely inwards from excavation of inner margin; an irregular sinuated brown disco-submarginal line, terminating upon costa in a brown lunate spot; costa from the latter to base brown-spotted; outer margin irregularly red-brown, edged internally with black towards apex and bounded by a lilacine nebula: secondaries with basal half orange, apical half dark pitchy brown; costa whitish, varied with blackish: body rose-brown, head with a central V-shaped brown marking: thorax streaked with olivaceous or reddish brown: abdomen rather cinereous in the centre, tawny at the sides, with the segments pink-edged and fringed with dark brown, two lateral series of oblique red-brown dots, the inner series interrupted above the fourth segment; anal tuft cinereous in the centre, black-brown at the sides: primaries below dark brown, base yellowish; an interrupted tawny spot at end of cell; the disk near costa and inner margin tawny ochraceous, varied with whitish and hatched with dark brown; outer margin shining slate-colour, inner margin dotted with whitish: secondaries tawny ochraceous, whitish on abdominal area, hatched and dotted with red-brown, costa grey-spotted; outer margin dark cinereous, black-edged internally: body below pinkish grey at the sides, reddish ochraceous in the centre; abdomen with a double ventral series of triangular white points; lateral tufts brown. Expanse of wings 1 inch 9 lines.

♂ ♀ Masuri, N.W. Himalayas.

Type, coll. F. Moore.

17. *LOPHURA PUSILLA*, n. sp.

Primaries above grey, with pink reflections; a white-edged sub-basal nebulous brown spot; a central oblique olive-brown band fading away at first median branch, and on each side of it a brown litura; a subtriangular brown patch at end of cell, interrupted by

the whitish discocellulars; two wavy brown-edged whitish lines; a reddish streak near external angle, and a black spot on inner margin; a brownish oblique nebula from outer margin near the angle to costa; outer margin partially but narrowly edged with dark brown: secondaries ochreous, outer margin broadly ferruginous, dotted with brown scales; inner margin edged with blackish: body greyish brown; abdomen reddish at the sides: wings below reddish ochreous, irrorated with brown; costa greyish, a whitish spot at end of each cell; primaries with inner margin grey, outer margin broadly brown; secondaries with abdominal area yellowish, two central transverse brown lines: body below grey, sprinkled with ferruginous scales. Expanse of wings 1 inch $2\frac{1}{2}$ lines.

Silhet.

Type, coll. F. Moore.

Subfamily CHÆROCAMPINÆ.

Genus ACOSMERYX, Boisduval.

General appearance of the *Mimas* group of the *Smerinthinæ* (*Polyptychus*): body more robust; male with a short anal tuft; palpi much larger; wings shorter and broader; primaries with outer margin subangulated in the middle and generally undulated; discocellulars below obscured by long scales: secondaries much broader, costal margin more convex, inner margin longer; outer margin more or less undulated: larva of the *Chærocampa* type.

The larva of *A. anceus* is figured in Moore and Horsfield's Catalogue, pl. ix. fig. 4. I have also seen a figure sent by S. N. Ward (from Canara) to Mr. Moore, which appears to be either a variety of the same larva or a distinct but nearly allied species; the moth not being so well figured as the larva, I cannot be certain; it is possible that it may be *A. sericeus*: the anal horn of the larva is long, dark, and curved.

18. ACOSMERYX CINEREA, n. sp.

Allied to *A. sericea*, but both sexes generally coloured as in *A. anceus* ♀, silvery grey tinted with brown; primaries crossed by six or seven oblique pale brown lines, and from costa to external angle by a brown bar; outer margin brown, bordered internally by a nebulous silvery streak; secondaries crossed beyond the middle by a pale brown bar, apex and outer margin pale brown, bounded internally by a reddish tint: body brownish grey; antennæ testaceous: wings below very similar to *M. sericea*, but altogether paler, very slightly tinted with reddish; secondaries crossed by four indistinct brown lines in pairs, apex grey: body below pale reddish brown. Expanse of wings 3 inches 7 lines.

Silhet (*Argent*).

Type, B.M.

We have three example of this species; it may at once be distinguished from *A. sericea* (irrespective of coloration) by the less-produced primaries, with scarcely undulated outer margin. Mr. Moore has a pair from Silhet and N.E. Bengal, which have the primaries coloured like *A. sericea*.

Genus PERGESA, Walker.

19. PERGESA ÆGROTA, n. sp.

Allied to *P. castor*, but altogether paler : primaries testaceous ; two angulated bars across basal area, two or three indistinct spots in cell, an interrupted waved discal bar, a disco-subapical diffused spot, a liture running from costa to upper radial nervure, and a zigzag submarginal line, brown ; a number of brown hatchings all over the wing, especially at outer margin : secondaries black-brown, costa pale shining testaceous ; a broad disco-submarginal, slightly waved, dark testaceous band : body testaceous ; thorax duller than abdomen, the latter with a double central longitudinal series of blackish dots, three basal segments with a lateral brown line : wings below stramineous ; markings nearly as in *P. castor*, brown ; body creamy stramineous. Expanse of wings 3 inches 1 line.

Silhet.

Type, coll. F. Moore.

20. PERGESA GLORIOSA, n. sp.

Somewhat resembles the *C. elpenor* group of *Chærocampa* : primaries red-brown ; the base, an irregular broad band across end of cell, increasing in width from internal nervure to costa, a narrow lunulated transverse discal line, the apical part of costal area, and a broad tapering irregular submarginal band bronzy olivaceous, dotted with whitish at the edges upon the nervures ; an interrupted pearly lilacine marginal line ; fringe ochreous ; a blackish spot on lower discocellular nervure ; secondaries dull olive-brown ; a broad rosy discal band, slightly tapering at both ends ; outer margin reddish ; fringe ochreous, white at anal angle : body olivaceous, rosy at the sides : wings below bright rose-red, crossed by three continuous parallel greyish discal lines ; primaries with costa ochreous, basal two fifths (excepting a subcostal dash extending into cell) dull brown, fringe ochreous ; secondaries with basal area creamy whitish, fringe as above ; body bright rose-red, legs cream-coloured. Expanse of wings 3 inches 6 lines.

Darjeeling.

Type, coll. F. Moore.

Genus PANACRA, Walker.

21. PANACRA ELLA, n. sp.

Nearly allied to *P. testacea*, same general pattern and coloration above ; it differs as follows :—primaries more golden, with the transverse brown lines less distinct, postmedian transverse lilacine streak diffused and broader, a large quadrate area from external angle to end of cell suffused with brown ; secondaries darker brown, pale discal streak less prominent and not so red in tint ; body above duller : wings below altogether more dusky, disk redder, outer margin of all the wings distinctly dull brown ; transverse lines of secondaries better-defined ; body yellower in the centre and more greyish at the sides. Expanse of wings 2 inches 5 lines.

Silhet.

Type, coll. F. Moore.

Possibly an extreme variety of *P. testacea*, but I think not.

22. *PANACRA REGULARIS*, n. sp.

Intermediate in character between *P. metallica* and *P. vigil*; differs from both in the perfectly regular oblique outer margin of primaries: wings above brown; primaries olivaceous, with the disk whitish from inner margin to centre of wing; basicostal area speckled with black, especially towards costa; base of costal area dark brown, remainder of costa pale, rather yellow at the edge; six oblique curved parallel discal dark brown lines, the three innermost filled in with smoky brown, radial nervures and external area between them dark; apex with a zigzag silvery white oblique litura; three apical submarginal blackish spots upon the nervures: secondaries pale smoky brown, costa whitish, abdominal area pale; anal angle whitish, margin and a submarginal streak dark brown: body almost as in *P. automedon*, but paler: primaries below dull brown, costa and external third greyish varied with pale buff and freckled with black; a discal series of black points: secondaries brownish grey mottled with dark brown and buff, a discal waved series of blackish points. Expanse of wings 2 inches 4 lines.

Java.

Type, coll. F. Moore.

A very distinct and interesting species.

Genus *CHÆROCAMPA*, Duponchel.23. *CHÆROCAMPA LEWISII*, n. sp.

Very like *C. elpenor*, but duller above, the rosy streaks on primaries less evident, primaries below with the golden discal patch not extending (except as a fine line) below lower radial. Expanse of wings 2 inches, 10 lines.

Japan (*Lewis*).

Larva very distinct from *C. elpenor*, brown or green. The brown larva differs principally in having the lower surface and lateral area of the last seven segments brown, with a defined undate-sinuate internal edge, each sinuosity answering to the convex margin of its segment; the two eye-like spots are much smaller and have pale brownish centres in both forms of the larva; the horn in the green form is longer but less curved than in the brown form. It feeds on Fuchsia and Balsam.

Without having seen the excellent figures of the transformations obtained by Mr. Lewis, I should not for a moment have thought this species distinct from *C. elpenor*.

24. *CHÆROCAMPA FRATERNALIS*, n. sp.

General aspect of *C. macromera*, but duller: primaries above golden olivaceous, with the two oblique bands and border dull greyish pink; secondaries with basal half dull black, external half dull pink, fringe whitish; body altogether duller: wings below bright rose-red, costæ ochreous, a central grey-brown transverse line; basal half of primaries brown, clothed to first median branch with ochreous and pink hairs: body below rose-red, abdomen with lateral white dots. Expanse of wings 3 inches 2 lines.

Simla (coll. F. Moore); N. India.

B.M.

The central transverse grey line below and the dull coloration above at once distinguish this species.

25. *CHÆROCAMPA MIRABILIS*, n. sp.

Primaries above pale dull greyish green, crossed by two distinct irregular blackish lines, the first angulated, crossing centre of cell, the second also angulated but in the opposite direction, with a deep central sinuation; base dusky, crossed by an indistinct whitish litura; a black discocellular dot; disk beyond cell dark green, inner margin pale rose-colour, outer margin slightly tinted with pink; secondaries grey-brown, costa whity brown, basal area and submarginal streak smoky brown, anal angle pale pink; body olive-green, margins of head and thorax and apical two fifths of pterygodes rosy cream-coloured; back of collar whitish: wings below rose-colour, with an irregular continuous central brown line; outer margin broadly brown; primaries with basal half pale brown: body below creamy; thorax tinted with pink, brownish at the sides; abdomen rosy at the sides. Expanse of wings 3 inches 3 lines.

N.W. Himalayas.

Type, coll. F. Moore.

A marvellous new species, allied to *C. fraterna*.

26. *CHÆROCAMPA ROSINA*, n. sp. (Plate XXXVII. fig. 6.)

Primaries nearly as in the figure of *C. lycetus*, silvery brown, rosy at the margins, with brown bands and lines as in *C. argentata* and *C. oldenlandiæ*, but the second from outer margin broader; the paler oblique postmedian streak running to apex scarcely less brown than the ground-colour; a ferruginous costal line; subcostal area, especially beyond the cell, tawny: secondaries dark brown, the costa and abdominal area testaceous, a dull rosy disco-submarginal streak from inner margin to subcostal nervure; outer margin greyish, with a rosy tint; fringe white, varied with dull rose-colour: body almost exactly as in *C. argentata*, but the central streak duller and more rosy and the lateral streaks more metallic: wings below very like *C. oldenlandiæ*, but much redder, with a broader rosy lilacine outer border, and the innermost transverse streak broader and darker. Expanse of wings 2 inches 8 lines.

Masuri, N.W. Himalayas (*Hutton*).

Type, coll. F. Moore.

In my opinion this is more like *C. lycetus* than is *C. oldenlandiæ*. The British Museum has recently received this species from Darjeeling.

27. *CHÆROCAMPA PUNCTIVENATA*, n. sp.

Closely allied to *C. clotho*, larger, primaries broader, the outermost transverse discal line dotted with black upon the nervures, and further from the outer margin; secondaries, body, and under surface as in pale examples of *C. clotho*. Expanse of wings 4 inches.

Masuri, N. W. Himalayas (*Hutton*), Silhet.

Type, coll. F. Moore.

The dotting of the nervures gives this species a very distinct as-

pect: there is an example of this species in the British Museum, without a locality, presented by Mr. Doubleday.

28. *CHÆROCAMPA BISTRIGATA*, n. sp.

Closely allied *C. clotho*; differs in the narrower primaries, blacker and narrower secondaries, with more pinky pale anal area, and the abdomen not black-specked, but with two pale parallel central longitudinal lines: underside as in pale examples of *C. clotho*. Expanse of wings 3 inches 8 lines.

Java (*Horsfield*).

Colls. F. Moore and B.M.

29. *CHÆROCAMPA GONOGRAPTA*, n. sp.

Allied to *C. clotho*: primaries varying from dove-colour to pale greenish, external area dotted with blackish scales, densely at apex; a nebulous darkish spot beyond cell; a black interno-basal tuft; the outermost oblique line of *C. clotho* indicated and dotted upon the nervures with blackish, but differing from that line in all the allied species in running nearly parallel to the outer margin as far as the subcostal fork, whence it is only continued very obliquely to apex in the form of the blackish apical scales mentioned above; innermost line sometimes present, but ill-defined; a black dot on lower discocellular nervure: secondaries with the whole outer margin broadly bordered with pinky whitish: body and underside as in very pale examples of *C. clotho*.

Bombay and S. India.

Type, coll. F. Moore.

30. *CHÆROCAMPA MINOR*, n. sp.

Nearly allied to *C. lineosa*, but having the general aspect of the *C. clotho* group: it differs from *C. lineosa* in its smaller size, delicate buff coloration, with less strongly defined oblique lines on primaries; the secondaries brown instead of black, with the discal band diffused, and the outer margin very pale brown; the body more uniform, marked with slightly paler but not whitish streaks; wings below creamy ochreous, mottled with flesh-colour, with the usual brown markings ill-defined. Expanse of wings 3 inches 6 lines.

Massuri (*Hutton*).

Type, coll. Moore.

I have no hesitation whatever in placing this as a well marked and distinct species between the *C. clotho* and *C. lineosa* groups.

31. *CHÆROCAMPA MAJOR*, n. sp.

Nearly allied to *C. lineosa*, but larger, the dark oblique band of primaries and the pale discal band of secondaries much broader, and the other markings better defined; a well-defined central thoracic pale streak; wings below generally redder; the oblique lines better defined and more continuous. Expanse of wings 4 inches 5 lines.

Darjeeling (*coll. Moore*); Silhet.

B.M.

I have very little doubt that this is a distinct species; it has a totally different aspect to *C. lineosa*, although agreeing with it in the arrangement of its markings.

Subfamily AMBULICINÆ, Butler.

Genus AMBULYX, Walker.

32. AMBULYX LITURATA, n. sp.

♂. Primaries above pale reddish brown; a short dark brown litura crossing the costal area near base, thence running for about half an inch along costal margin, thence obliquely across the end of cell to origin of third median branch; two parallel lunulated lines running transversely across the wing from third fourth of median nervure to inner margin, the outer line darker than the inner; a small black rounded interno-median spot near the base; three transverse irregularly undulated discal lines, darkest towards costa and inner margin, the innermost one best defined and widely separated from the two others; the space between the first and second line and the area next to external area darker than the ground-colour; a costal apical dusky patch, margined internally and crossed externally by oblique olive-brown streaks; a yellow-edged dark brown submarginal line, tapering from the middle to both extremities; marginal enclosed area slightly darker than the ground-colour; extreme edge and fringe rosy brown; the usual veins darkened; secondaries golden yellow towards costa and apex, mottled with red-brown, becoming ferruginous, clothed with whitish hair scales to submedian nervure; abdominal area whity brown; a concave central transverse blackish bar, tapering to abdominal angle, a lunulated discal line from near costa to near anal angle, and beneath it, upon first median branch, a black dot; outer margin red-brown; fringe rosy brown: thorax rosy whitish, crest crossed transversely by a dark olive-brown bar; pterygodes and metathorax streaked with a dark red-brown bar: abdomen whity brown, segments white at the margins and edged with ferruginous; a blood-red dorsal line: wings below golden yellow, tawny externally and mottled with greyish brown; two or three interrupted greyish brown transverse streaks; outer margin of primaries greyish, with a dark inner edge; abdominal area of secondaries testaceous: body orange; venter rosy whitish in the centre; legs partly testaceous; palpi brilliant tawny. Expanse of wings 4 inches 5 lines.

——?

♂ ♀, type, coll. F. Moore.

The larva of this species is extremely beautiful; it is bright sap-green with the underparts bluish green, the spiracles even paler, almost white, the prolegs reddish; a narrow white stripe gradually widening from behind the head to the front of third segment, and thence to the tail; a series of eight elliptical crimson-edged white spots crossing the segments, and continued obliquely downwards between the spiracles in the form of ill-defined oblique yellowish stripes, the last spot also continued upwards by a whitish stripe running to the base of the anal horn, which is yellowish green; an indistinct oblique yellowish stripe from outer angle of anal claspers. Length 3 inches $1\frac{1}{2}$ line; length of anal horn $3\frac{1}{2}$ lines.

Both larva and pupa are of nearly the Smerinthine type, proving

that the genus has been wrongly located amongst the *Chærocampinæ*; it is, in fact, somewhat allied to *Basiana*.

A note, on the original drawing representing the three stages of this species, states that it "feeds on *Amoora Rohituka*."

The female of *A. liturata* is larger and darker than the male; the primaries are redder and more uniform in colour, the outer marginal area alone being distinguished by deeper coloration; the body is also darker, with the dorsal line of the abdomen dark brown.

33. *AMBULYX RHODOPTERA*, n. sp.

♂. Allied to the preceding; primaries with the markings similar but less distinct, outer marginal area darker, the entire wing with the exception of the marginal area rosy; secondaries rather paler than in *A. liturata*, the mottlings less distinct, the inner transverse bar reduced to a line: body rosy, with the usual dark mahogany-brown thoracic bands; dorsal abdominal line brown: wings and body below rather lighter than in *A. liturata*. Expanse of wings 4 inches 1 line.

Darjeeling.

Type, coll. F. Moore.

A very pretty and distinct species.

34. *AMBULYX SERICEIPENNIS*, n. sp.

Primaries silky, of the male whitish brown, of the female pinkish grey; a rounded spot at base, a second at basal sixth of costa, and in the male a third on interno-median interspace near the base, all dark olive-brown, encircled with whitish; two very irregular parallel brown lines crossing the wing before the end of the cell; a black dot on lower discocellular veinlet; a broad grey-margined lunulated discal olivaceous band from costa to inner margin, where it becomes tinted with slate-colour; a very indistinct lunulated grey line beyond it; the apical patch olivaceous, margined internally and crossed obliquely near apex by diffused dusky streaks; outer margin broadly olivaceous, margined internally by a dusky line, within which is a pale yellow halo: secondaries much as in the preceding species, paler in the male, darker with blackish transverse lines in the female: body of male whitish brown, of the female pinkish grey with the usual bands dark olive-brown; wings below much paler, ochraceous, sparsely mottled with grey; primaries with whitish marginal border. Expanse of wings, ♂ 3 inches 9 lines, ♀ 4 inches 8 lines.

Massuri, N.W. Himalayas (*Hutton*).

Type, coll. F. Moore.

A very pretty species.

35. *AMBULYX LAHORA*, n. sp.

Primaries above rosy brownish, base slightly clouded with grey; a large olivaceous spot with a whitish margin at basal fifth of costa; a similar oblique oval interno-median spot near the base; two irregular parallel transverse lines, crossing the third fourth of cell; a broad slightly waved continuous discal olive-brown band; a lunulated line just beyond it and confounded with it towards inner margin; an oblique diffused subapical brown litura; outer margin with a broad

olive-brown border, tapering at each end; fringe ferruginous: secondaries dull brick-red, the costal area and base testaceous, abdominal area reddish testaceous, anal area suffused with whitish; a central transverse straight grey streak from inner margin to end of cell; an abbreviated discal grey line, and a brownish anal submarginal litura: body above brownish, with usual dark markings; face whitish: wings below pale ferruginous, disk of primaries browner in tint; two ill-defined discal continuous ferruginous lines; primaries with inner margin silky, testaceous or bronzy; outer margin with a broad tapering whitish border: secondaries with basal and abdominal areas somewhat whitish: thorax below and base of abdomen deep ferruginous; remaining segments of abdomen greyish. Expanse of wings 4 inches 2 lines.

N.W. Himalayas.

Type, coll. F. Moore.

Allied to the preceding, but entirely distinct.

36. *AMBULYX TURBATA*, n. sp.

Primaries above rich castaneous; a broad central greyish band, margined on both sides by indistinct zigzag brown lines from subcostal nervure above end of cell to inner margin; a greenish grey spot on lower discocellular; disk clouded with blackish; outer margin with broad coffee-brown border, tapering at apex, but not at external angle, margined internally, excepting towards apex, by an orange line edged within with whitish and bounded by four semicircular olivaceous spots, margined towards apex by a dusky-edged pearly line: secondaries almost as in *A. liturata*: body red-brown; head greyish, with red-brown crest: wings below much like *A. sericeipennis*, but redder and darker: body bright ochraceous, varied with reddish; palpi and prothorax reddish orange. Expanse of wings 4 inches 7 lines.

Darjeeling.

Type, coll. F. Moore.

Var. Smaller, brighter in colour; primaries with two central and two discal transverse zigzag lines, all distinct; submarginal semicircular spots less marked, blending at their bases into an undulated fascia; secondaries much brighter in colour, with the transverse lines much blacker; wings below transversely mottled with distinct grey spots. Expanse of wings 4 inches 1 line.

Canara, S. India.

Coll. F. Moore.

The most beautiful species in the genus, with the exception of *A. rubricosa*; it is allied to *A. sericeipennis*.

Subfamily SMERINTHINÆ.

Genus BASIANA, Walker.

37. *BASIANA EXUSTA*, n. sp.

Allied to *B. deucalion*: primaries rosy greyish, basal area pale slaty grey, covered at base by testaceous tufts; three parallel dark grey zigzag lines across the middle of the cell from costa to inner margin; two dusky-edged parallel zigzag discal olivaceous bars from costa to inner margin; apex blackish, between it and outer band

a greyish patch; outer margin red-brown; a black dot on lower discocellular, enclosed in a pale testaceous streak, which runs from within cell, just above the third median branch to outer discal bar: secondaries rosy brick-colour, costa testaceous, anal angle grey; two pale postmedian brown streaks from anal angle to discoidal nervure, outer margin and an abbreviated lunulated discal streak dark brown, bordered within with pale rosy: thorax chocolate-brown, testaceous at the sides; abdomen whity brown: wings below rosy, crossed by two parallel discal brown lines, outer margin dark brown; primaries with an oblique line from apex to lower discoidal nervure, subapical area lilacine, base and inner margin testaceous: thorax below deep foxy red, especially the palpi and prothorax; abdomen deep rose-red. Expanse of wings 3 inches 7 lines.

Kunawur, N.W. Himalayas (*Lang*).

Type, coll. F. Moore.

This is a very pretty little species; the larva, according to Capt. Lang, feeds on poplar.

Genus TRIPTOGON, Bremer,

Bull. de l'Acad. Imp. St. Pétersb. iii. (1861).

Allied to *Metamimas*; primaries not angulated below apex; all the wings regularly undulated from apex to external angle; under surface of discoidal area of primaries densely scaled so as to obscure the discocellulars; upper discocellular of secondaries rather longer than lower, convex, lower oblique; palpi short, obtuse; antennæ long, of male strongly pectinated.

Type *T. dissimilis*, Bremer.

38. TRIPTOGON GIGAS, n. sp.

Allied to *T. sperchius*, rather larger; primaries above paler, excepting at centre of outer margin; a blackish discocellular spot; four transverse basal lines well defined: secondaries red-brown (as in *T. dyras*); anal angle paler, with two obliquely placed small brown spots: primaries below with central transverse lines less distinct; secondaries whity brown, excepting at anal angle (which is tawny) three nearly equidistant red-brown lines. Expanse of wings 5 inches 5 lines.

♂ ♀, Silhet (*Stainsforth*).

Type, B.M.

39. TRIPTOGON CRISTATA, n. sp.

Wings and body above dull clay-brown, clouded with slaty grey; primaries crossed by seven dark brown lines, the third and fourth (but especially the latter) well defined, oblique, and nearly straight; the lines arranged much as in *T. gigas*, but the third and fourth nearer together; the spot near external angle olive-brown, not well defined; a pale spot on lower discocellular vein: secondaries nearly uniform in colour, but rather darker towards apex, browner on abdominal area, and very slightly paler at anal angle, where there is also an olive-brown spot: body with a well-marked dark central longitudinal crest from the front of the head to near the end of abdomen; antennæ whity brown: wings below brighter-coloured than

above ; primaries olive-brown, reddish towards base, with the costa and veins rosy clay-colour, two dark brown undulated parallel discal lines from costa to near inner margin ; secondaries rosy clay-colour, crossed by three almost equidistant dark brown lines, the outermost one subangulated in the middle : body below rosy clay-colour ; palpi, tibiae, tarsi, and anal valves dusky. Expanse of wings 4 inches 9 lines.

Vicinity of Darjeeling.

Type, coll. W. B. Farr.

Allied to *T. gigas*, but altogether darker, redder, and much more uniform in colour ; it differs from all its allies in the continuous crest from end to end of the body : it is a very distinct new species, not likely to be confounded with any member of the *T. dyras* group.

40. TRIPTOGON ALBICANS, n. sp.

♂ ♀. Allied to *T. gigas*, but smaller, altogether paler, the body and primaries whitish ; the latter without the nebulous brown suffusion from outer margin to end of cell ; the central lines closely approximating at inner margin ; the discal spot within the wavy line small and less distinct : secondaries whitish, with a central brick-red diffused band from inner margin to near apex, leaving a subquadrate whitish patch at anal angle ; anal spots brown, less distinct : wings and body below almost white. The male with a slight tawny diffused patch near external angle of primaries and anal angle of secondaries ; the female with a faint reddish-brown suffusion in cell of primaries : male with two elbowed continuous discal brownish lines and a third straight line across cell of secondaries ; female with two additional parallel abbreviated lines just beyond cell of primaries, and an additional line just beyond cell of secondaries. Body whitish. Expanse of wings, ♂ 4 inches 4 lines, ♀ 5 inches 1 line.

Massuri, N.W. Himalayas (*Hutton*).

Type, coll. F. Moore.

41. TRIPTOGON SINENSIS, n. sp.

♀. Very like *T. dyras* ; primaries less strongly excavated below external angle, more pointed at apex, outer margin less strongly undulated, transverse lines less distinct, sixth line (beyond cell) straighter, eighth line more broadly waved, enclosed spot obsolete, apical darker area narrower and longer : secondaries paler, scarcely undulated ; anal angle less grey, with only one black spot : wings below altogether paler, transverse lines less strongly waved. Expanse of wings 4 inches 5 lines.

Hong-Kong (*Harrington*).

Type, B.M.

This is a local modification of *T. dyras* ; but it is evidently quite distinct from *T. sperchius*, which with *T. gigas*, *T. dissimilis*, and others, forms a little distinct section of the genus characterized by long produced primaries.

42. TRIPTOGON JAVANICA, n. sp.

Primaries above whity brown, clouded with chocolate-brown nebulae, crossed by transverse lines arranged almost as in *T. dyras*, but all strongly defined ; the wavy line more contracted above the black

spot, which is smaller; secondaries brick-red, dusky towards base; costa testaceous; a whitish nebula at anal angle enclosing the two usual dark brown spots: wings below coloured as in *T. sinensis*, but slightly darker, the transverse lines also very similar, but better defined and rather wider apart in the primaries: expanse of wings, ♂ 3 inches 3 lines, ♀ 4 inches 5 lines.

Java (*Horsfield*).

♂ ♀, B.M.; ♀, coll. F. Moore.

Easily distinguished from *T. dyras* by its superior size and very much deeper colouring, also in the much more strongly defined transverse lines on the upperside of primaries and on the underside of all the wings.

43. TRIPTOGON CEYLANICA.

♂. *Smerinthus dyras* (part.), Walker (descr.), Lep. Het.viii. p. 250. n. 13 (1856).

Larger and broader than the preceding, the primaries olivaceous darker on both surfaces; the transverse lines less woolly, more sharply defined; the eighth line with a well-rounded curve; the spot larger: secondaries chestnut-red, abdominal area dusky in the centre, anal whitish patch as usual, black spots large: wings below more dusky than in the preceding species, with the transverse lines almost black; the discal lines in primaries continued to inner margin, and the post-cellular lines to below third median branch; inner lines in secondaries much straighter, outer discal lines more waved: the body (as well as the wings) altogether browner in tint. Expanse of wings 3 inches 8 lines.

♂, Ceylon (*Templeton*).

Type, B.M.

44. TRIPTOGON SILHETENSIS, n. sp.

Smerinthus dyras (sic), Boisduval, MS. (part. Walker).

Nearly allied to the preceding, rather lighter, not quite so broad, the outer margin more strongly undulated, the apex more produced, the inner margin more excavated near external angle; the transverse lines finer, not quite so defined, less angular; the blackish spots similar; wings below altogether paler; chocolate apical marginal patch more restricted, subapical area whitish; outer central line of secondaries almost obsolete; outer discal lines much more angular. Expanse of wings, ♂ 4 inches, ♀ 4 inches 5 lines.

♂ ♀, Silhet (coll. F. Moore); ♀, Silhet (*Stainsforth*). B.M.

This species was placed with *T. dyras* by Mr. Walker; and it is on one of our examples of this species that I found Dr. Boisduval's MS. label; it is, however, evident (from the measurement given) that Mr. Walker did not make it the type of his description.

45. TRIPTOGON ORIENS, n. sp.

♂. Primaries same form as *T. silhetensis*, whity brown, clouded with greyish brown, transverse lines unusually straight, the wavy line very indistinct, apical margin broadly dusky; secondaries nearly as in preceding species, rather paler; body greyer than in any of the preceding species: wings below as pale as in *S. dyras*, but the

apical marginal red-brown patch of primaries restricted to apex; apical third of wing dusky, whitish at costa; discal lines on all the wings very indistinct; central lines well marked. Expanse of wings 4 inches.

N.E. India.

Type, coll. F. Moore.

In this species and the male of the preceding the most noticeable thing at first sight is the strongly marked blackish patch above the whitish anal nebula of secondaries; in this species, owing to the paler colouring of all the wings, this character is more evident than in *T. silhetensis*.

46. *TRIPTOGON MASSURENSIS*, n. sp.

Primaries of male paler than in any other species, of female similar in colour to *T. silhetensis*; apex very acute; fifth obtuse denticle of outer margin more prominent, and the wavy line with a wider curve than in any other species; black spot small; apex dusky: secondaries dull reddish, as in *T. javanica*: underside of male as in *T. dyras*, but with the transverse lines more defined, the apical red-brown patch of primaries strongly marked, and the sub-apical area whitish; the underside of the female almost as in *T. silhetensis*, but more dusky, the apical patch more restricted, the costal area of primaries duller, the central lines of secondaries straighter. Expanse of wings ♂ 3 inches 8 lines, ♀ 4 inches 3 lines.

Massuri, N.W. Himalayas (*Hutton*).

Type, coll. F. Moore.

Nearly allied to the preceding.

47. *TRIPTOGON FUSCESCENS*, n. sp.

♂ ♀. Altogether browner than any of the preceding species; the apical and basal areas of primaries more dusky; all the transverse lines dark brown, well defined; the discocellulars dark: secondaries duller than usual; the interno-median dark patch less conspicuous; the anal spots large in the male, small in the female: wings below brownish testaceous, all the transverse lines very strongly defined; the male with the apex of primaries and the apical area (excepting at costa) greyish brown, the nervures crossing it and the external angle tawny; the costa sordid white: secondaries rosy-tinted, with the external area beyond the discal lines uniformly tawny, slightly dusky at apex: the female below (as above) is very similar to that sex of *T. massurensis*, but paler, less reddish and more greyish. Expanse of wings ♂ 3 inches 8 lines, ♀ 4 inches 5 lines.

Darjeeling.

Type, coll. F. Moore.

This and the six preceding it are doubtless all local representatives of *T. dyras* of Walker.

48. *TRIPTOGON SPECTABILIS*, n. sp.

♂. Primaries lilacine grey, costal area red-brown, outer margin from costa to second median branch with a broad tapering chocolate-brown border bounded within by a pale pinky line; two very irregular brown-edged dark grey bands across basal half of wing, also several very indistinct brown lituræ; discocellulars brown, a

whitish dot on lower discocellular; external half of wing distinctly marked off by a narrow brown-edged dusky band, followed immediately by a brown bisinuated line; an irregularly undulated line and ocelloid patch (enclosing two large black spots) near external angle, as in *T. dyras* and allies: secondaries brown, darker towards centre of abdominal area, costal area testaceous, anal area grey; an ochraceous submarginal diffused litura at apex; the veins of costal half of wing tawny: thorax grey; abdomen pinkish brown, with clay-coloured diffused lateral patches on each segment, edges of the segments whitish, a dorsal ferruginous line: primaries below smoky brown, the base and internal area testaceous; apical half of costa creamy white; apical area greyish; crossed by pinkish veins, and transversely by a postcellular diffused subcostal spot and two parallel postcellular abbreviated lines, dark brown, also by two much more widely separated blackish lines, the inner one best-defined, angulated so that it joins the outer one in second median interspace; a sinuated orange spot at apex; external area below third median branch golden orange, clouded and irrorated with bright ferruginous: secondaries rosy, abdominal area grey; a submarginal anal streak of bright orange, bordered with brown externally; three central parallel slightly irregular brown lines and two more widely separated angulated discal lines; a whitish diffused subapical costal spot, and a line of the same colour margining the outer discal line; the areas between the lines somewhat dusky; body rosy clay-colour. Expanse of wings 3 inches 11 lines.

Darjeeling.

Type, coll. F. Moore.

A very beautiful species.

49. *TRIPTOGON ROSEIPENNIS*, n. sp.

Allied to *T. gaschkwitschii*, but the primaries more pointed at apex and brownish ochreous, lilacine between the bands, the inner margin and apex slaty grey, outer margin from apex to first median branch black-brown, basal tuft rosy; secondaries rose-colour, becoming ochraceous at outer margin, two large black subanal spots (not bordered with white); body much darker, thorax purplish brown, with a broad deep chocolate-brown longitudinal central streak; abdomen brown, purplish at the sides: primaries below paler than above, interno-basal half (costa excepted) rosy, disk pale brown tinted with rosy, outer margin broadly coppery brown from costa to inner margin; secondaries pale brown, tinted with rosy, abdominal area broadly pink, outer margin broadly coppery brown; body purplish brown. Expanse of wings 3 inches 7 lines.

Hakodadi (*Whitely*).

Type, B.M.

The larva of this species is bright sap-green, covered with minute yellow tubercles, with seven long oblique lateral stripes of yellow from between the spiracles to the dorsal region; legs yellow, prolegs tipped with brown.

A second form of the larva is pale sea-green, with the posterior areas of the sixth to the eleventh segments in the dorsal region pale greyish pink; the tubercles and lateral stripes white; the legs pale green.

A third variety is golden yellow, with the tubercles and lateral stripes paler yellow; the segments, excepting the anterior ones, with lateral pectinated subtriangular crimson-lake patches, bounded internally by the lateral oblique lines, and a reddish diffused spot in front of the tubercles: this is the most beautiful variety.

Mr. Lewis found the species feeding upon plum and cherry.

Subfamily SPHINGINÆ.

Genus ISOGNATHUS, Felder.

50. ISOGNATHUS FUMOSA, n. sp.

Dark brownish grey; primaries marked, much as in the preceding species, with brown lines and dots, a long oblique blackish streak beginning within cell and running into second median interspace; secondaries orange-yellow, with a broad chocolate-brown outer border (10 millimetres wide), deeply excavated on abdominal margin, and streaked with three whitish lituræ at anal angle: body brownish grey, thorax indistinctly varied with darker brown; abdomen fasciated with dark-brown bars, interrupted in the middle: below smoky brown, disk of wings crossed by a darker streak, blackish on the nervures; secondaries with the costal area greyish, a large subtriangular orange patch from abdominal margin to centre of discoidal cell and corresponding disk. Expanse of wings 3 inches 11 lines.

Brazil (*Stevens*).

Type, B.M.

Possibly the female of *Sphinx leachii*, but with a much wider black border to secondaries.

51. ISOGNATHUS METASCYRON, n. sp.

Allied to *D. scyron*; pinkish brown above, irregularly clouded and spotted with black, the nervures on disk spotted with alternate black and clay-coloured strigulæ and dots, internal half of wing dusky; secondaries orange-yellow, with a rather broad black border (4 millimetres) to outer margin, not reaching abdominal margin: body uniformly pinkish brown; collar, a streak on pterygodes, a lateral abdominal series of bars, and two central longitudinal lines dark brown; wings below nearly as in preceding species, but the orange patch of secondaries much larger and crossed above middle of wing by blackish nervures. Expanse of wings 4 inches.

Villa Nova (*Bates*).

Type, B.M.

I found this species mixed up with *I. fasciata*. It seems chiefly to differ from *I. scyron* in its greater size and the much narrower black border of secondaries, and from *I. swainsonii* in the latter character.

Genus DILOPHONOTA, Burmeister.

52. DILOPHONOTA DOMINGONIS, n. sp.

♂. Exceedingly like *D. obscura* ♂, but broader in wing; the primaries much whiter, with the streaks and spots showing dark upon them; the discocellular area quite white, enclosing a black dot; secondaries redder; thorax darker; abdomen rather greyer, central

pale streak divided by a median grey line; wings below paler, primaries redder and secondaries whiter at base; thorax below whitish. Expanse of wings 2 inches 7 lines.

♀. Altogether darker than *D. obscura* ♀; the patch on discocellulars, the apical patch, and the external border of primaries silvery grey, rendering the species much like a small example of *D. omphaleæ*; the secondaries, body, and under surface differ as in the ♂. Expanse of wings 2 inches 7 lines.

Haiti (*Tweedie*).

Type, B.M.

Genus PROTOPARCE, Burmeister.

53. PROTOPARCE GRISEATA, n. sp.

Nearly allied to *P. carolina*, but the primaries, head, and thorax greenish, the transverse lines on primaries more oblique and irregular; secondaries whitish, crossed at base by a blackish bar, not reaching costa, a central irregular blackish bar, forking internally from submedian to subcostal nervure; a broad brown border to outer margin, blackish internally, whitish externally, and intersected towards anal angle by a whitish litura; thorax without a blackish collar or blackish margins to pterygodes; abdomen with six lateral decreasing more or less oval orange spots: primaries below somewhat like *P. carolina*, paler, only two transverse dusky discal bars, marginal area whitish; secondaries sordid white, costa and a submarginal band smoky brown; two central brown lines, widely diverging towards costa, the outer one strongly dentate; body below greyish brown. Expanse of wings 3 inches 8 lines.

Venezuela (*Dyson*).

Type, B.M.

Genus PSEUDOSPHINX, Burmeister.

54. PSEUDOSPHINX CYRTOLOPHIA, n. sp.

Very close to *P. nyctiphanes*, much smaller, paler, and more ochraceous in tint, transverse pale band near base of primaries more regular, dark band beyond cell more incurved and less expanded at costa; apex paler, scarcely marked with darker spots; secondaries with the series of pale spots less yellow, much further from outer margin, whitish fringe less perceptible; wings below altogether paler, markings on primaries less distinct. Expanse of wings 3 inches 4 lines.

Madras.

Type, coll. F. Moore.

The larva of this species is pale pink, with oblique lateral diffused green stripes, margined below with white, and a dorsal white line. It has a conical hump on the neck; and the horn, especially in the young stages, is long and slightly tending to recurve at the tip.

Genus DOLBA, Walker.

55. DOLBA HARTWEGII, n. sp.

Dolba hylæus (part), Walker, Lep. Het. viii. p. 230, specimens *f, g* (1856).

Primaries above smoky brown; a whity brown subbasal undu-

lated bar, intersected by a brown undulated line, not reaching costa or inner margin; a broad grey-brown central fascia, margined and intersected by five lunulated ill-defined black lines; a white spot at end of cell; disco-submarginal area crossed by two confused zigzag black lines, and widening abruptly near apex: secondaries smoky brown, blackish at anal angle, pale at base, whitish on basicostal area; a pale brown waved discal streak, becoming white towards anal angle; a pale brown submarginal anal litura: head, prothorax, and tegulæ dark brown, remainder of thorax greyish; external margins of tegulæ blackish; abdomen grey-brown, with a row of lateral dark brown spots: wings below grey-brown, a pale dusky-edged bar from costa of primaries to anal angle of secondaries; head, thorax, and anus below brown; base of palpi and femora of legs and venter white. Expanse of wings 2 inches 5 lines.

Oaxaca, Mexico (*Hartweg*).

Type, B.M.

Genus DILUDIA, Grote.

56. DILUDIA GRANDIS, n. sp.

Intermediate between *D. obliqua* and *D. discistriga*; most like the latter, but readily distinguished by the single broad black bar from costa to end of cell (enclosing a distinct white point on lower discocellular nervure), almost joining a single long distinct black streak on second median interspace; apical patch grey, broader than in any other species, widely encircled with black: secondaries rich brown, with costa and a subcostal patch at base silky testaceous; anal angle whitish, as in *D. obliqua*, crossed by four black bars, the two central ones well defined, running across the centre of the wing: body whitish grey; thorax with usual black streaks; abdomen with dorsal and lateral interrupted black streaks: wings below altogether whiter than *D. obliqua*, otherwise somewhat similar. Expanse of wings 5 inches 8 lines.

Nepal.

Type, coll. F. Moore.

57. DILUDIA RUBESCENS, n. sp.

Allied to the preceding, but altogether redder in tint; the primaries much broader, irrorated all over with golden scales, a distinct oblique black bar from costa to end of cell, discocellular lunate whitish spot large and distinct, apical patch broader and more irregular than in any of the allied species; discal lunulated lines broadly separated, but less defined, not filled in with whitish: secondaries broader, blacker, with two central converging and a third discal black streaks: body much redder; lateral streak blacker; three or four lateral large creamy ochreous black-edged spots: underside much as usual. Expanse of wings 4 inches 9 lines.

North India.

Type, coll. F. Moore.

Genus HYLOICUS, Hübner.

58. HYLOICUS ASIATICUS, n. sp.

Nearly allied to *H. pinastri*, larger, darker; outer margin of

primaries straighter, the spot in cell perpendicular, the median streaks longer, the central nebulous fascia less defined; body dark grey; pterygodes almost entirely chocolate-brown; abdomen with lateral black spots smaller, less defined; wings below paler; the transverse discal brown streak scarcely visible in primaries, and further from outer margin; ventral blackish spots larger. Expanse of wings 3 inches 7 lines.

"E. Indies. Probably from Scinde"! (*Warwick*). Type, B.M.

Notwithstanding the general similarity between this species and *H. pinastri*, I have no doubt that it is distinct. It is probable, from what we know of the metamorphoses of the *Sphingidæ*, that the larvæ of the two species are much less alike than the imagines.

59. HYLOICUS UNIFORMIS, n. sp.

Allied to *H. asiaticus*, but altogether smaller, paler; the markings less defined, excepting two central waved transverse grey bands across primaries; the abdomen uniform whity brown, without lateral black and white spots; fringe whitish; wings and body below uniform sericeous whity brown. Expanse of wings 2 inches 1 line.

N.W. Himalayas.

Type, coll. F. Moore.

This is by far the smallest species in the genus. It may at once be distinguished from *H. pinastri* and allies by the uniform greyish or whity-brown colour of the abdomen.

EXPLANATION OF THE PLATES.

PLATE XXXVI.

- Fig. 1. *Sataspes xylocoparis*, p. 239.
 2. *Hemaris mandarina*, p. 239.
 3. *Lophura masuriensis*, p. 244.
 4. *Rhopalopsyche bifasciata*, p. 239.
 5. *Macroglossa vialis*, p. 240.
 6. — *catapyrrha*, p. 243.
 7. — *affictitia*, p. 240.
 8. — *pyrrhosticta*, p. 242.
 9. — *glaucoptera*, p. 241.

PLATE XXXVII.

- Fig. 1. *Macroglossa hemichroma*, p. 243.
 2. — *interrupta*, p. 242.
 3. — *nigrifasciata*, p. 241.
 4. — *imperator*, p. 243.
 5. — *luteata*, p. 241.
 6. *Chærocampa rosina*, p. 248.

6. On a new Species of Deer from Mesopotamia.

By Sir VICTOR BROOKE, Bart., F.Z.S.

[Received March 16, 1875.]

(Plate XXXVIII.)

Upon his return from the Seistan Boundary Expedition, our Corresponding Member Mr. Blanford informed me that he had heard